



V-E-8

TOWN AND VILLAGE OF HARRISON ENGINEERING DEPARTMENT

Alfred F. Sulla, Jr. Municipal Building
1 Heineman Place
Harrison, New York 10528



Michael J. Amodeo, P.E.
Town/Village Engineer

Frank Balbi, P.E.
Assistant Engineer

August 22, 2012

Mayor Ron Belmont and
Members of the Village Board
Village of Harrison
1 Heineman Place
Harrison, New York 10528

Re: Professional Services Contracts
Pilgrim Road Drainage Improvements
Pilgrim Road Drainage District

Dear Mayor Belmont and Members of the Village Board:

Village Board approval is requested for the following Professional Services Contracts for work related to drainage improvements on Pilgrim Road:

Woodard and Curran Engineering, at a cost not to exceed \$49,400.00, for engineering and design services; George Mottarella, at a cost not to exceed \$4,400.00, for topographical survey services and Evans Associates, at a cost not to exceed \$1,000.00, for wetland consultation services, for a total cost of \$54,800.00. Copies of the **detailed** proposals are attached for your information and review.

Further authorization is requested for the Law Department to review the proposals, and upon review, the Mayor to execute same.

Finally, funding for these contracts is available in Capital Account 12DR02.

Respectfully submitted

Michael J. Amodeo, P.E.
Town/Village Engineer

MJA/fmb

Attachments

Cc: Law Department
Purchasing Department

**COMMITMENT & INTEGRITY
DRIVE RESULTS**

Woodard & Curran Engineering P.A. P.C.
709 Westchester Avenue | Suite L2
White Plains, New York 10604
www.woodardcurran.com

T 800.807.4080
T 914.448.2266
F 914.448.0147



May 18, 2012

Mr. Michael Amodeo PE
Town Engineer
One Heineman Place
Harrison, NY 10543

Re: Pilgrim Road Drainage Improvements
Professional Engineering Services Proposal

Dear Mr. Amodeo:

We appreciate this opportunity to provide the Town with a proposed scope of work to develop a preferred engineering solution for the flooding conditions experienced along Pilgrim Road. The following is our understanding of the project, our proposed scope of work and budget estimate.

PROJECT UNDERSTANDING

On April 13, 2012 Woodard & Curran met with Frank Balbi Assistant Town Engineer at the above site to define and understand the existing conditions and the extent of flooding in the Pilgrim Road area. The stormwater presently overflows Pilgrim Road from the wetland to the east and reportedly ponds up to three feet on Pilgrim Road after large storm events. This ponding results in some of the homes being inaccessible and it also makes it difficult for emergency equipment to access for sometimes up to a day.

The Town will require engineering support to evaluate feasible options, and to develop a design solution.

SCOPE OF WORK

Engineering Evaluation – The engineering evaluation will include a review of the past drainage reports and information related to catchment areas to estimate the quantity of flow being conveyed to the frequently flooded low area on Pilgrim Road. The engineering analysis will be completed using TH-65-based methods for the 2, 10 & 100-year storm event. The results of the engineering analysis will be provided to the Town Engineer in a memorandum with a map that illustrates the catchment area considered and the results of the drainage analysis. In addition, we will meet with the Town to define the potential solutions, focusing on two that the Town has considered in the past.

Once these options are defined, Woodard & Curran will evaluate the options based on the regulatory requirements (including federal, state and local code requirements) as well as the technical issues and implementation costs (approvals, design, construction).

This information will be used as the basis to facilitate the Town's decision making on the preferred option.

Surveying – The survey work will be completed in a two step process, with the first step being field measurements to better define the Project Area, and the second step being the preparation of easement documents if necessary, depending on the selected design option, for use by the Town Engineer in securing easements through private properties. The scopes of work for each of these steps are further described below.



- **Surveying** – The engineering design will be based on the latest aerial survey that the Town will provide in digital form. Additional supplemental field measurements will be required to verify topography and refine the base map for use in completing the engineering design and project construction. The scope and cost of any supplemental field surveying will be determined with the Town Engineer and provided for approval prior to proceeding with the work. As an option, the Town may contract directly with the surveyor. The surveyor will prepare a field topographic survey of the selected drainage alignments along Pilgrim Road.
- **Easements** – At the request of the Town Engineer, Woodard & Curran will coordinate with our project surveyor on the computation of new easements or the preparation of revisions to existing drainage easements. In addition, Woodard & Curran, coordinating with the Town's Legal Counsel, will prepare a legal description of the selected easement for use by the Town in securing deeded drainage easements through private property (again, depending on the option selected).

Engineering Design – The engineering design will be completed based on the stormwater flows identified in the engineering analysis and the preferred engineering solution option. Based on these flows and the survey data, up to three schematic layouts will be submitted to the Town for consideration, including design and construction costs, drainage channel slopes, and the appropriate cross sections and armoring required to convey the 100 year storm event. The specific calculations that will be completed include culvert outlet protection, defining the size of the flow channel and the size of the armoring, and sizing and location of sediment traps to capture sediment that may be conveyed into the system. The engineering design will be completed in accordance with the *New York State Standards and Specifications for Soil Erosion and Sediment Control*, latest edition, and the *New York State Stormwater Management Design Manual*, latest edition.

A memorandum that includes a written description of the options, cost calculations and details for the preferred option, will be provided to the Town Engineer prior to proceeding with the preparation of construction drawings.

In addition, as part of the design solution, given the poor condition of the roadside swales and two of the drainage inlets, Woodard & Curran will provide typical details of the roadside swales and recommendations for improving the inlets so that flow can efficiently be conveyed into the culverts at the crossings.

Construction Drawings – Once the Town Engineer reviews the engineering design memorandum, and concurs with the approach, the construction drawings will be prepared. The construction drawings will include the following drawings:

- **Existing Conditions Plan** – the existing conditions plan will define the location of each culvert crossing, the extent of the existing drainage channels, and their relation to Pilgrim Road.
- **Proposed Overall Site Plan** – the overall site plan will describe the drainage improvements along Pilgrim Road through the future easement.
- **Enlarged Plans** – An enlarged plan of the culvert discharge area will be presented along with the existing topography, proposed grading, outlet protection, extent of armoring and location of sediment traps, and all required soil erosion and sediment controls.
- **Sections and Details** – This sheet will present the sections and details associated with the drainage work, including outlet protection, channel cross sections and armoring, sediment



trap(s), all soil erosion and sediment control details and notes, concrete headwall(s), catch basin inlets, and typical roadside swales.

- **Specifications** - The technical specifications for the proposed work improvements will be represented on the drawings, or provided in written form, for use by the Town in procuring and administering the construction contract. The estimated quantities of work will be included.

Meetings – During the planning and implementation stages of the project, we envision the following meetings:

- **Kickoff Meeting** – At the initiation of the project, our Project Manager and Senior Project Manager will attend a kickoff meeting with the Town Engineer to review the overall objectives and design strategies that the Town Engineer and his staff may have already considered and/or conceptualized.
- **PRA Meeting** - An informational meeting with the stakeholders to share information and set objectives.
- **Town Board Meeting** – We anticipate two meetings with the Town Board to describe the design approach and plans for the project site.

Engineering Costs

The fee for this project is detailed as follows:

Task	Hours	Expenses	Total
Engineering Evaluation	120	\$25	\$18,025
Engineering Design & Specifications	120	\$250	\$15,250
Construction Drawings	100	\$500	\$13,100
Meetings (Assuming 4)	20	\$25	\$3,025
Total	360	\$800	\$49,400

Our costs assume that the surveyor will contract directly with the Town. We would be pleased to provide the Town with a written description of the surveying required for the purposes of securing a surveyor.

Additional Assumptions

1. Wetlands and tree survey are not included.
2. Assumes no permits will be required by Woodard & Curran as part of this phase of the work.
3. Contractor procurement, including bid evaluation and recommendation for award, is included.
4. Up to 5 sets of plans and specifications will be provided to the Town in "hard copy" format and in addition, bid documents for Contractors will be provided on a disk.



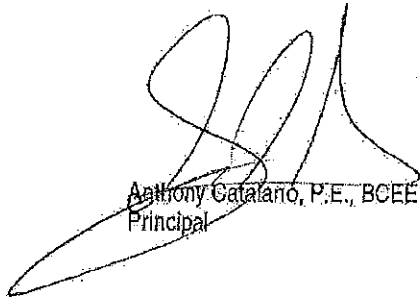
Our work will be performed in accordance with the terms and conditions of our Master Services Agreement (MSA) with the Town. We understand that the Town is in the process of approving the MSA as part of a separate assignment with the Town.

Thank you for this opportunity to support the Town with this assignment.

Sincerely,

Sincerely,

WOODARD & CURRAN ENGINEERING P.A. P.C.


Anthony Catalano, P.E., BCEE
Principal


Hugh Greechan, P.E.
Senior Project Manager

If this proposal is acceptable, please sign below.

Signature

Print Name



GEORGE J. MOTTARELLA, PE, LS, PC.
Civil Engineer & Land Surveyor

August 8, 2012

Mr. Michael Amodeo, P.E.
Town Engineer
Alfred F. Sulla, Jr. Municipal Building
1 Heineman Place
Harrison, N.Y. 10528

Re: Proposal-Pilgrim Road Topographic Survey

Dear Mr. Amodeo:

As per your criteria, I am submitting the following proposal:

- Prepare a rough survey of area as directed by Woodard & Curran Engineering in order to establish a path for proposed drainage.
- Prepare a final topographic survey which will include the following:
 1. 2 foot contours and spot elevations
 2. Property lines with possession in the area of construction
 3. Wetland flagging
 4. Location of all visible stormwater piping
 5. Map will be prepared in NY State Plane East Zone coordinate system Nad 83/96, and NAVD 1988 for elevation
 6. Locate visible utilities and mark out lines
 7. Location of sewer laterals or septic systems if obtainable
- Prepare schedule A easement descriptions for each property encumbered by installed drainage piping.
- All deliverables will be in auto cad format.

My fees for the above proposal are:

- \$ 1,000.00 for the rough survey.
- \$ 3,400.00 for final topographic survey.

Sincerely,


George Mottarella

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2012 AUG 14 A 11:03
OFFICE OF TOWN ENGINEER
TOWN-CLG. OF HARRISON, NY

March 15, 2012

V -- 2012 -- 032

AUTHORIZATION OF A BOND RESOLUTION AUTHORIZING,
SUBJECT TO PERMISSIVE REFERENDUM, THE PREPARATION
OF A MAP, PLAN AND REPORT FOR THE PROPOSED EXTENSION
OF THE PILGRIM ROAD DRAINAGE DISTRICT, IN AND FOR THE
VILLAGE OF HARRISON, WESTCHESTER COUNTY, NEW YORK,
AT A MAXIMUM ESTIMATED COST OF \$100,000 AND
AUTHORIZING THE ISSUANCE OF \$100,000 SERIAL BONDS OF
SAID VILLAGE TO PAY THE COST THEREOF.

On motion of Mayor Belmont; seconded by Trustee Cannella,

it was

RESOLVED, by the affirmative vote of not less than two-thirds of the total voting strength of the Board of Trustees of the Village of Harrison, Westchester County, New York, as follows:

Section 1. The preparation of a map, plan and report for the proposed extension of the Pilgrim Road Drainage District, in and for the Village of Harrison, Westchester County, New York, including incidental costs and expenses in connection therewith, is hereby authorized, **SUBJECT TO PERMISSIVE REFERENDUM**, at a maximum estimated cost of \$100,000.

Section 2. The plan for the financing of the aforesaid maximum estimated cost is by the issuance of \$100,000 serial bonds of said Village, hereby authorized to be issued therefor pursuant to the provisions of the Local Finance Law.

Section 3. It is hereby determined that the period of probable usefulness of the aforesaid specific object or purpose is five years, pursuant to subdivision 48 of paragraph a of Section 11.00 of the Local Finance Law. It is hereby further determined that the maximum maturity of the serial bonds herein authorized will exceed not five years.

Section 4. The faith and credit of said Village of Harrison, Westchester County, New York, are hereby irrevocably pledged for the payment of the principal of and interest on such bonds as the same respectively become due and payable. An annual appropriation shall be made in each year sufficient to pay the principal of and interest on such bonds becoming due and payable in such year. There shall annually be levied on all the taxable real property of said Village, a tax sufficient to pay the principal of and interest on such bonds as the same become due and payable.

Section 5. Subject to the provisions of the Local Finance Law, the power to authorize the issuance of and to sell bond anticipation notes in anticipation of the issuance and sale of the serial bonds herein authorized, including renewals of such notes, is hereby delegated to the Village Treasurer, the chief fiscal officer. Such notes shall be of such terms, form and contents, and shall be sold in such manner, as may be prescribed by said Village Treasurer, consistent with the provisions of the Local Finance Law.

March 15, 2012

V -- 2012 -- 032

Section 6. All other matters except as provided herein relating to the serial bonds herein authorized including the date, denominations, maturities and interest payment dates, within the limitations prescribed herein and the manner of execution of the same, including the consolidation with other issues, and also the ability to issue serial bonds with substantially level or declining annual debt service, shall be determined by the Village Treasurer, the chief fiscal officer of such Village. Such bonds shall contain substantially the recital of validity clause provided for in Section 52.00 of the Local Finance Law, and shall otherwise be in such form and contain such recitals, in addition to those required by Section 51.00 of the Local Finance Law, as the Village Treasurer shall determine consistent with the provisions of the Local Finance Law.

Section 7. The validity of such bonds and bond anticipation notes may be contested only if:

- 1) Such obligations are authorized for an object or purpose for which said Village is not authorized to expend money, or
- 2) The provisions of law which should be complied with at the date of publication of this resolution are not substantially complied with, and an action, suit or proceeding contesting such validity is commenced within twenty days after the date of such publication, or
- 3) Such obligations are authorized in violation of the provisions of the Constitution.

Section 8. This resolution shall constitute a statement of official intent for purposes of Treasury Regulations Section 1.150-2. Other than as specified in this resolution, no monies are, or are reasonably expected to be, reserved, allocated on a long-term basis, or otherwise set aside with respect to the permanent funding of the object or purpose described herein.

Section 9. Upon this resolution taking effect, the same shall be published in summary form in the Journal News, which is hereby designated as the official newspaper of said Village for such purpose, together with a notice of the Village Clerk in substantially the form provided in Section 81.00 of the Local Finance Law.

Section 10. **THIS RESOLUTION IS ADOPTED SUBJECT TO PERMISSIVE REFERENDUM PURSUANT TO SECTION 209-b OF THE TOWN LAW.**

The question of the adoption of the foregoing resolution was duly put to a vote on roll call, which resulted as follows:

Trustee Amelio	VOTING	AYE
Trustee Cannella	VOTING	AYE
Trustee Malfitano	VOTING	AYE
Trustee Sciliano	VOTING	AYE
Mayor Belmont	VOTING	AYE

Copies to:

☐ Assessor
☐ Benef's
☐ Bldg
☒ Compt'l.
☒ Engrng
☐ Law
☐ Police
☒ P. Works
☐ Purch'g
☒ Recr'tn
☒ Supvs'r

FILED THIS

DAY OF

March 20/12

Jacqueline Greer

Town Clerk, Harrison, New York

The resolution was thereupon declared duly adopted

* * * * *